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Urdu Translation and Validation of Recovery Related Discrimination Scale among Drug Users

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Abstract
The current study aimed to translate and validate Recovery Related Discrimination Scale into Urdu language. The study was conducted in two phases. Phase 1 comprised of the forward and backward translation of Recovery Related Discrimination Scale by a panel of experts. In phase 2, the scale was administered on a sample of 400 drug users admitted in Rehabilitation Centers. The overall reliability of the scale was .851, whereas reliability for micro and macro discrimination is .885 and .871 respectively. The EFA and CFA were run to assess the factor structure of the translated version of Recovery Related Discrimination Scale. The two-factor solution emerged for the Urdu version of Recovery Related Discrimination Scale, with factor 1 comprising of 11 items to measure micro discrimination and factor 2 comprising of 12 items measuring macro discrimination. Both factors showed good internal consistency. All the values of goodness of fit were above threshold level. CFI obtained value was .968, GFI was .940, AGFI was .932 and IFI value was .968. RMSEA was below .05 mark, and recorded value of .033. The scale also demonstrated the good values for composite and convergent validity. The criterion validity was determined by correlation between Recovery Related Discrimination Scale and Illicit Drug Use Stigma Scale (r = .580, p < .001). The Urdu translation of Recovery Related Discrimination Scale proved to be valid and reliable measure for use in Pakistan.

Keywords: Recovery Related Discrimination, Micro Discrimination, Macro Discrimination, Urdu Translation, Drug Users.

Introduction

Vilsaint et al. (2020) pointed out the persons using alcohol and other drug (AOD) are among the most stigmatized segment of the population globally. The stigma decreases the chances of help-seeking behavior or rehabilitation out of fear of discrimination. They reported that persons who used alcohol and other drugs faced discrimination, even during the process of recovery. Barry et al. (2014) pointed out that the frequent discriminatory practices due to public and private policies impacted the people with alcohol or other drug problems. Discriminatory practices include but not limited to the restricted access to appropriate health care, employment opportunities, and public benefits. Such discriminatory practices discouraged people with alcohol and other drug problem to seek treatment. According to Barry et al. (2014) after facing

discriminatory practices, individuals with drug problems lost hope for recovery and resulted in millions of dollars loss to society. It is interesting to point out that there is significant difference between attitude towards persons with mental illness compared to those with drug addiction. General population reported more negative attitude toward persons with drug addiction. General population had negative attitude towards marrying a person with alcohol and other drug problems. Some of the respondent even reported unwillingness to work with drug addicts on job Storti et al. (2011). Discriminatory practices were more endorsed when it mattered about drug addicts. Barry et al. (2014) added the skepticism about the effectiveness of available treatments, opposition to public policies aimed at helping persons with drug addiction.

Malik et al. (2023) reported that stigma is a significant predictor of drug relapse along with other psychosocial factors. Jones et al. (2024) reported the prevalence of stigma and discrimination experienced by drug addicts. They added that family members and friends of individuals with an alcohol and other drug also experience stigma and discrimination commonly known as courtesy stigma. According to Jones and his colleagues the family and friends of drug addicts experienced isolation, reported poor mental health, and lower quality-of-care after being victim to courtesy stigma. Van Boekel et al. (2013) reported the negative consequences due to widespread substance use problems. According to Van Boekel and colleagues (2013) persons with substance use problems experienced challenges in the society. Persons with substance use problems, on one side, had to manage primary symptoms, serious conditions and seek treatment. On the other side due to stigma and discrimination they experience additional mental health issues.

Alcohol and other drug (AOD) problems are prevalent across the globe with high concentration in middle- and high-income countries. AOD are reported to contribute a lot in nations burden in terms of disease, disability, and premature mortality, as well as economic cost (Collins, 2016). Humphreys (2017) pointed out the differences between chronic disorders, such as diabetes or hypertension, and AOD disorders. They reported AOD had more negative effects on significant others as well as society in broader manners. The person suffering from AOD are considered threat to public safety and a source of criminal activities such as driving under the influence, assaults and theft etc. Sacks et al. (2015) pointed out that since individuals with AOD are more likely to commit crime, therefore they face more stigmatizing and discriminatory practices.

According to research individuals with a diagnosis of A/SUD experience greater levels of stigma and discrimination compared to individuals with mental health problems. It is argued that higher levels of stigma and discrimination are linked with perception as individuals are more likely to be blamed for their alcohol/substance use (Yang et al., 2017). Vilsaint et al. (2020) characterized discrimination into two dimensions; micro discriminations comprised of construct related to perceived personal slights, such as untrustworthy, dishonest, or always about to relapse; macro discriminations that is characterized by violations of personal rights, such as being denied the right to vote or obtain employment or accommodation. Macro discriminations are the result of knowledge about individual's prior AOD problem history. Levi and Appel (2013) reported that person who use drug were asked for eviction from public housing. They were deprived from food stamps and other social benefits. People who use drug often get refusal of federal loans and financial aids. Foster (2008) stated that there are many informal barriers that effectively deny treatment to people who use drugs, especially the one who use injectable drugs and are affected with antiretroviral or hepatitis C. Phillips and Shaw (2013) reported that substance user face more stigma as compared to smoker and individual with other problem such as obesity and mental illness. Muncan et al. (2020) reported that individuals with substance use problem face three types of stigmas. They reported 79.8% of the participants experience one of the three types, enacted, anticipated and internalized drug use stigma.

Kelly et al. (2021) reported that Alcohol and Substance Use Disorder (A/SUD) created significant burden to individuals as well as increased societal challenges. Due to its stigmatized condition, the individual suffering from AOD disorders have greater tendency to face stigmatizing attitudes, these stigmatized attitudes result in shame and stigma among sufferers. Pennington et al. (2023) pointed out that due to stigma and discrimination individuals with SUD are less likely to remain in treatment. They are also less inclined to seek or receive social support (Birtel et al., 2017). Furthermore, there has been an emphasis to understand recovery not only among those with provider defined remission but also among person-centered definitions of problem resolution given three-quarters of the yearly economic burden is attributable to consequences of hazardous / harmful alcohol consumption patterns that do not meet diagnostic criteria (Vilsaint, et al., 2020).

Discriminatory practices against people with AOD disorders can increase psychological distress (Cruz et al., 2018). McGaffin et al. (2012) reported the role played by social support and resulting mental health conditions. They pointed out that individuals experienced continued discrimination despite successfully resolving a significant AOD problem. They argued that individual how had achieved long-term remission and recovery faced discrimination due to stigma that in turn reduced quality of life and also undermined recovery efforts.

There are various measures available for assessment of stigma and discrimination faced by drug user. Ahren et al. (2007) developed The Illicit Drug Use Stigma Scale. It is a 10-item measure with dichotomous response categories. The scale is designed to assess perceived devaluation, alienation, discrimination faced by drug addicts. The Substance Use Stigma Mechanisms Scale (SU-SMS), developed by Smith et al. (2016), measures stigma in three domains; domain 1 enacted stigma that consisted of experiences of discrimination from others in the past or present; domain 2 anticipated stigma that is characterized by expectations of experiencing discrimination from others in the future, and domain 3 internalized stigma that consisted of endorsement and application of negative beliefs and feelings about people with substance use disorders and applying them to the self. Luoma et al. (2010) developed 8-item perceived stigma toward substance users.

Vilsaint et al. (2020) developed Recovery Related Discrimination Scale. It is a 25-item scale based on five-point Lickert response rate. The scale was further divided into two subscales that is micro discrimination and macro discrimination. The Urdu Translation of Recovery Related Discrimination Scale will not only be beneficial in Pakistani context where majority of the individuals speaks and understand Urdu. The Urdu translation of Recovery Related Discrimination Scale will provide a better insight into the prevalence and nature of perceived discrimination that would not only be helpful in determining the appropriate treatment protocols and develop a comprehensive drug reduction policy.

Method

Sample

The researcher collected the data from 400 male drug addicts admitted in the different drug rehabilitation centers of Mansehra, Haripur, Abbottabad and Islamabad using convenient sampling technique. Age of participants ranges from 18-45.

Measure

The Recovery Related Discrimination Scale (RRDS-25) is a questionnaire consisting of 25 items created to measure perceived discrimination in addiction recovery (Villsaint et al., 2020). Respondents answer questions on a scale from 1 to 4, where 1 represents never, 2 denotes once or twice, 3 denotes a few times, 4= often.

Phase 1 Englis to Urdu Translation of RRDS-25

Six multilingual experts consisting of assistant professors (4), heads of department (2), translated RRDS-25 from its original source language of English to its intended target language of Urdu. So that word meanings could not alter, they then asked to translate it word by word. A committee of six experts consisting of assistant professors and heads of department carefully evaluated each item. The style, word choice of each item and grammar were carefully evaluated by these specialists to make sure they were as true to the original test as possible. The scale was then translated backward using the Brislin (1976) approach as the following step. The Urdu elements were to be translated back into English by two Urdu lectures, two English lecturers and one psychology lecturer. The RRDS-25 original English edition was unknown or unfamiliar to these instructors. Then a small sample of 20 drug addicts with 20-40 years of age were given these chosen items to complete. The outcomes showed that the scale items were clear cut. Each item is logical and unambiguous and they can all be used in further analysis.

Phase 2: Main Study

Cronbach's alpha was utilized to analyze the scale's reliability and establish the psychometric features of the RRDS-25 Urdu translation. RRDS-25 factor construct validity was assessed using Analysis of Moment Structure (AMOS 20; CFAs).

Procedure

The subjects were contacted and they provided their written, informed consent. The subjects were given the necessary instructions to complete the questionnaires as completely and honestly as possible. All participants were thanked for participating in the study after the data had been collected. Due to incomplete surveys, some data had to be discarded. Total 100 questionnaire were discarded. The response ratio was 80%. After data collection, the proper statistical analyses were used to analyse the data. The principal dimensions of the scale and their factor structure were determined using EFA in SPSS-23. The factors of RRDS-25 were evaluated using CFA in AMOS-22. The correlation between all scales was determined using the Pearson product-moment correlation coefficient.

Results

The results of the current findings were based on the analysis of 400 participants.

Reliability

The reliability estimates were computed for total scale and subscales of the Recovery Related Discrimination Scale. The results indicated that Cronbach alpha value for total scale is .851, whereas micro discrimination subscale had a Cronbach alpha of .885 and macro discrimination subscale had a Cronbach alpha of .871.

Validation

Factor structure of the Recovery Related Discrimination Scale and its dimension were found using EFA. To evaluate the factor structure CFA was calculated for Recovery Related Discrimination

Scale. The standardized regression values for the CFA, should be greater than .35 as an acceptable threshold for the model (Orcan, 2018). Figure 1 depicts the factor loading for the Recovery Related Discrimination Scale. All values are above threshold level of acceptable standardized regression.

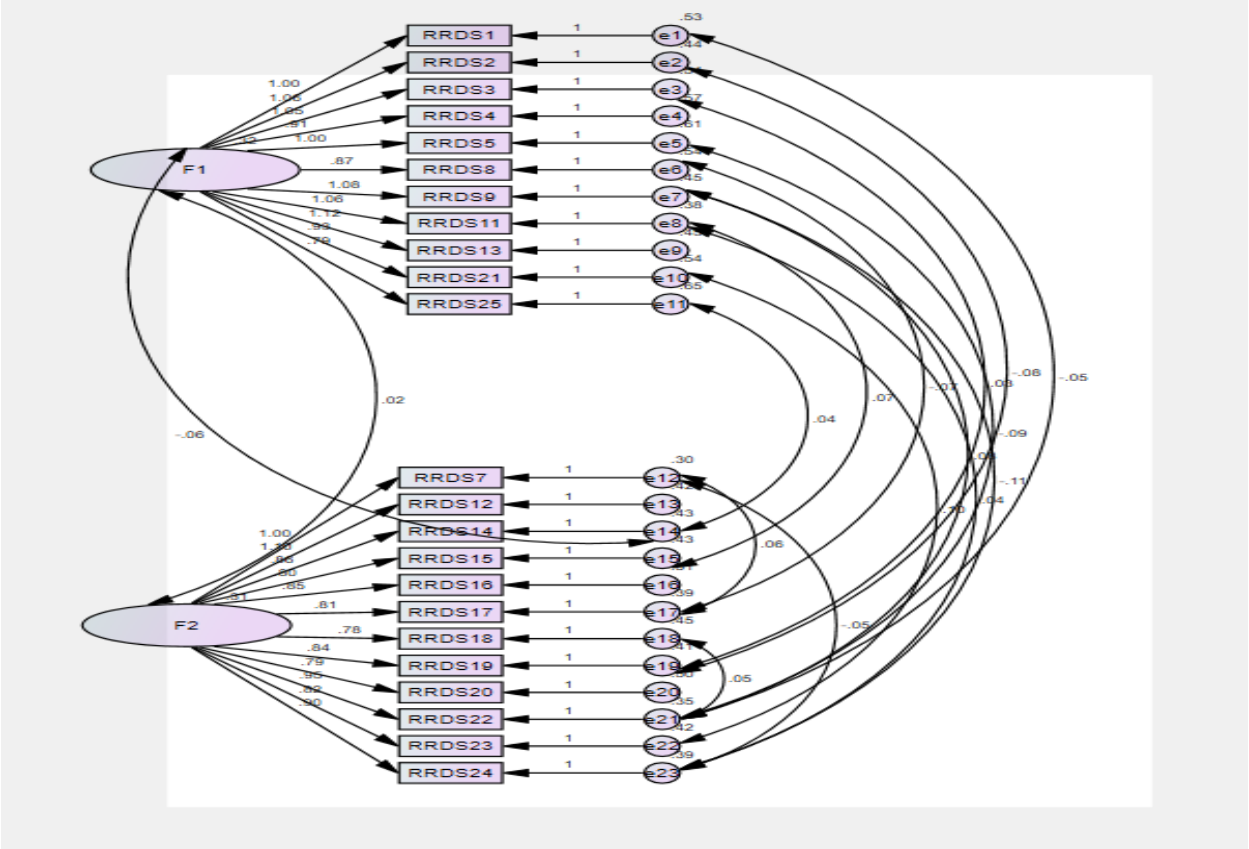

Figure 1. Graphical Representation of Two Dimensions of RRDS-25 Recovery Related Discrimination Scale

Table 1

Demographic Characteristics of the Participants on RRDS-25 Recovery Related Discrimination Scale (N = 400)

Demographic	**Frequency**	**%**
Age		
Min	18	
Max	45	
Gender		
Male	400	100

Table 2

Communalities Values of Extraction Method by using Principal Components Analysis of RRDS-25 Recovery Related Discrimination Scale (N = 400)

Item Number	**Value**
RRDS-1	.538
RRDS-2	.549
RRDS-3	.594
RRDS-4	.508
RRDS-5	.511
RRDS-6	.752

RRDS-7	.602
RRDS-8	.506
RRDS-9	.559
RRDS-10	.575
RRDS-11	.515
RRDS-12	.518
RRDS-13	.545
RRDS-14	.573
RRDS-15	.507
RRDS-16	.502
RRDS-17	.597
RRDS-18	.536
RRDS-19	.514
RRDS-20	.503
RRDS-21	.532
RRDS-22	.568
RRDS-23	.503
RRDS-24	.564
RRDS-25	.509

Results in table two show the extraction values of the items of Recovery Related Discrimination Scale. The values for items ranged between .502 to .752. indicating that items have satisfactory values. Hence all items were used for the analysis.

Table 3.

Factor Loading for Exploratory Factor Analysis by Using Varimax Rotation Analysis of Recovery Related Discrimination Scale (N = 400).

Item No.	Factor 1	Factor 2
RRDS-9	.741	
RRDS-13	.733	
RRDS-11	.708	
RRDS-3	.694	
RRDS-2	.667	
RRDS-21	.648	
RRDS-5	.639	
RRDS-1	.638	
RRDS-4	.612	
RRDS-8	.590	
RRDS-25	.516	
RRDS-7		.733
RRDS-12		.715
RRDS-22		.683
RRDS-24		.670
RRDS-14		.644
RRDS-17		.641
RRDS-23		.630
RRDS-19		.626

RRDS-18		.607
RRDS-15		.606
RRDS-16		.596
RRDS-20		.568
% Variance	19.89	
Cumulative Variance	42.35	
Kaiser–Meyer–Olkin Measure	.888	
Bartlett's test of sphericity	11.92 < .001	

Note. RRDS = Recovery Related Discrimination Scale.

The results in above table indicate a two-factor solution for Recovery Related Discrimination Scale based on exploratory factor analysis. Factor one comprised of 11 items and factor two comprised of 12 items.

Table 4.

Model Fit Indices for RRDS-25 Recovery Related Discrimination Scale (N = 400).

Model	**χ^2(df)**	**χ^2/df**	**Goodness-of-fit indices**				
			GFI	AGFI	CFI	IFI	RMSEA
RRDS-25 Two-Factor	306(214)	1.432	.940	.932	.968	.968	.033

Note. RRDS = Recovery Related Discrimination Scale; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; CFI = comparative fit index; IFI = incremental fit index; RMSEA = root mean square error of approximation.

The results in table 4 presented the CFA for Recovery Related Discrimination Scale. According to Orcan (2018) CFA is based on four fit indices. The value for CFI in table 4 is .968, whereas Orcan reported that value of CFI should be greater than .950. The values for GFI, AGFI and IFI should be greater than .90, and in current study the values for GFI, AGFI and IFI are .940, .932 and .968 respectively. Orcan pointed out that value for RMSEA should be less than .60. RMSEA obtained for current data is .033.

Table 5.

The CFA Reliability and Validity Results for Final Model of RRDS-25 Recovery Related Discrimination Scale (N = 400).

Construct	**Item**	**Factor Loading**	**Cronbach's Alpha (> .7)**	**CR (> .6)**	**AVE (> .5)**
Factor 1	RRDS-9	.741	.885	.891	.531
	RRDS-13	.733			
	RRDS-11	.708			
	RRDS-3	.694			
	RRDS-2	.667			
	RRDS-21	.648			
	RRDS-5	.639			
	RRDS-1	.638			
	RRDS-4	.612			
	RRDS-8	.590			
	RRDS-25	.516			
Factor 2	RRDS-7	.733	.871	.894	.512
	RRDS-12	.715			
	RRDS-22	.683			

	RRDS-24	.670			
	RRDS-14	.644			
	RRDS-17	.641			
	RRDS-23	.630			
	RRDS-19	.626			
	RRDS-18	.607			
	RRDS-15	.606			
	RRDS-16	.596			
	RRDS-20	.568			

Note. CFA = confirmatory factor analysis; RRDS = Recovery Related Discrimination Scale; CR = composite reliability; AVE = average variance extracted.

The results in table 5 indicated the Cronbach alpha, composite reliability and average variance extracted for each of the factor obtained for Recovery Related Discrimination Scale.

Table 6.

Correlation coefficients for Recovery Related Discrimination Scale and Illicit Drug Use Stigma Scale (N = 100).

Scales	**1**	**2**	**M**	**SD**
1. RRDS	-	.580***	59.37	10.11
2. IDUSS		-	15.29	2.61

Note. RRDS = Recovery Related Discrimination Scale; IDUSS = Illicit Drug Use Stigma Scale.

The results in table 6 indicate that recovery related discrimination scale has a positive correlation with illicit drug use stigma scale.

Discussion

The present study aimed at translating and validating Recovery Related Discrimination Scale among drug addicts in Urdu. The original scale was constructed by Vilsaint et al. (2020). The Cronbach alpha for translated Urdu version was .851 indicating a high reliability. EFA and CFA yielded two factor solution for Recovery Related Discrimination Scale. The Cronbach alpha values for each factor was satisfactory. The obtained reliability values for Factor 1 and Factor 2 are .885 and .871 respectively.

CFA showed both factors had good indices of fit as well as both factors had good composite reliability and average variance extracted. CFA adaptive values are reported in the results (Thompson, 2000). The scale showed good convergent validity. Obtained composite reliability for both subscales were .891 and 894 respectively, whereas convergent values for both subscales were .531 and .512 respectively. The item total correlation values ranged between .356 to .576 ($p < .001$) indicating the construct validity as all items were significantly positively related to total score of scale. The scale showed good model fit for indices. The χ^2 value obtained for the data was 306 with a degree of freedom of 214. The χ^2/df value of 1.432 indicated the values well within the range. Schreiber et al. (2006) reported that acceptable fit for RMSEA is less than .05, whereas obtained values is .03 indicating a good fit for indices.

The results revealed that all of the goodness of fit indices have above threshold values. The obtained values for, GFI is .940, AGFI is .932. CFI is .968, IFI is .968. That is each value of goodness of fit indices is above .900 (Phutti et al., 2023). The results yielded two factors that were originally proposed by the author, factor 1 micro discrimination, comprised of 11 items, whereas two items were removed from the final analysis due to double factor loading and factor 2 macro discrimination. The results indicated that recovery related discrimination scale and its both subscales demonstrated good fitness indices for current translation in Urdu.

The translated version also demonstrated criterion validity as it demonstrated a reliability coefficient of .580 ($p < .001$) with Illicit drug use stigma scale; the scale is designed to measure stigma and discrimination among drug users. Thus, it can be concluded that Urdu translation of recovery related discrimination scale is a valid and reliable tool for assessment of micro, macro and overall discrimination among drug users who understand Urdu language.

Limitation and Suggestion

The current study was conducted on drug users admitted in Rehabilitation Centers. Further studies can be conducted on drug users who are never admitted for a better comparison.

The Illicit Drug Use Stigma Scale was use for convergent validity only. Other measures can be used to assess the psychometric properties of the translated version and to establish divergent and discriminant validity of the scale.

Conclusion and Implications

It is concluded that Urdu translation of Recovery Related Discrimination Scale demonstrated to be a valid and reliable tool for assessing the discrimination faced by Pakistani drug users. EFA and CFA indicated that Recovery Related Discrimination Scale is suitable measure to asses the micro and macro discrimination faced by drug users. The scale can be utilized by the researchers, clinical psychologist, mental health professional to gain deeper understanding into the role played by discrimination and stigmatization.

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Conflict of Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Statement

The research was conducted on participant who volunteered for the participation and did not involve any harmful procedures.

Data Availability Statement

Data available on request from the author

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